

May 22-28, 2004

<P>The Terra spacecraft is operating nominally. All five instruments are in science mode.</P>

<P>The next Delta-V maneuver to compensate for atmospheric drag will be conducted in July.

Lower than expected solar activity with consequent minimized effect on the upper atmosphere

has resulted in reduced atmospheric drag, eliminating the need for a Delta-V maneuver in June.</P>

<P>On Wednesday, May 19 (DOY 140), MISR scheduled three calibration activities requiring movement of the goniometer, with the second requiring that the goniometer be
“parked”

at a specific position (38 degrees) prior to the start of the calibration sequence. However,

the previous calibration left the goniometer at 33 degrees instead of the commanded value of 38

degrees. A second attempt was made to park the goniometer at 38 degrees with the same negative

result. At this point the middle calibration sequence was inhibited in the Absolute Time

Command load to prevent the calibration from proceeding with the goniometer in the incorrect

position. The third and final calibration was allowed to take place because the MISR Instrument

Operations Team (IOT) informed the Terra Flight Operations Team (FOT) that it did not matter

if the goniometer was at 33 degrees at the start of the final calibration sequence. The final

calibration sequence executed nominally, and at the end the goniometer OFF command was sent

according to procedure. When this command was sent the goniometer stopped at the 38-degree

position that it had been commanded to twice earlier, indicating that the command indeed failed to execute properly two previous times.</P>

<P>Analyzing this event, the MISR IOT informed the FOT that the instrument occasionally exhibits what they describe as a known “idiosyncrasy,” where under certain circumstances the goniometer OFF position command does not execute properly. All MISR hardware data were reviewed, including previous calibrations, and the MISR IOT met with the MISR engineers and calibration team on Monday, May 24, to attempt to better understand

the problem and potentially re-work the calibration sequence of events to reduce the likelihood of future occurrences. The MISR IOT has agreed to schedule a meeting to discuss

their findings, and will send a formal explanation of this anomaly. No additional calibrations are scheduled prior to conducting these meetings and analyses.

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